Almost all MANE classes are offered just once a year, so it is important to take the courses in the order you are advised by the Manufacturing Engineering undergraduate faculty advisor, or else, you may lose a year.

- The most critical courses are the calculus, physics and chemistry courses, MATH2413, MATH2414, PHYS2425, CHEM1309 and CHEM1109. If you do not take these courses early, you will run out of courses to take because of the prerequisites.
- The second most critical courses are the basic engineering, computer science and math courses, MANE2332, MECE2340, MECE2140, MANE2403 and MATH3341.
- The third most critical courses are the junior level engineering classes MANE3337, MECE3321, MANE3351, and MANE3364.
- You must take CHEM1309 and CHEM1109 Chemistry for Engineers and Lab, OR you must take the combination CHEM1111, CHEM1112, CHEM1132, CHEM1132 (General Chemistry I and II).
- Technical electives are upper division MANE courses, typically MANE4333 that may be taken in your junior and senior years.
- You may register for MANE3101 research/project/internship classes in three separate times to get credit for one technical elective.
- It is preferred that the Ethics class PHIL2326 be taken after the other core courses because performance in this course is better when the student has a higher level of maturity.

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UT Rio Grande Valley

BLUE PRINT

MANUFACTURING ENGINEERING (BSMFGE)

Catalog: 2019-20

COLLEGE OF ENGINEERING AND COMPUTER SCIENCE
### Blueprint Experiences

#### First Year
- **Milestones**
  - Shoot a GPA of > 3.0.
  - Complete 30 credit hours every year to graduate in 4 years.
  - Shoot for a GPA of > 3.0.
  - Take MATH2413 Calculus I, or the highest math prerequisite course you can get into, in your first year.
  - Meet with your academic advisor and bring your orientation folder with you to every session!
  - Choose a major with confidence. Visit My.UTRGV.edu and check out MyMajors.
  - Visit a faculty member during their office hours and ask a question about class.
  - Classes fill up fast. When registration opens, be sure to register on the first day for your group.
  - Cold or flu getting you down? We have Student Health Services on campus with free office visits.
  - Look for a service-learning course for guidance, visit Engaged Scholarship & Learning Office.
  - Participate in a campus-sponsored community service project.
  - Ask a student in class to study with you.
  - Set up your profile on the Engagement Zone through My.Majors.com.
  - Look at study abroad opportunities.
  - Consider attending the Leadership Institute or the Engaged Scholarship Symposium.
  - Ask your undergraduate advisor about research and project opportunities.
  - Consider going to Germany or China.
  - Check out a cultural campus or community event such as HESTEC or FESTIBA.
  - Join another student organization. Perhaps SAE (Minor Baja or Aero Design) or visit VLink for options.
  - Check out a campus event that offers free lunch and bring a friend.
  - Update your resume in Handshake and have it reviewed.
  - Visit the Career Center site to find a job fair to attend. At the event, approach a recruiter and discuss internships.
  - Check out the Manufacturing and Industrial Engineering department website for postings on career/grad school.
  - Think about three people you can ask for letters of recommendation (professors, mentors, advisors, supervisors, etc.). Give them at least two weeks’ advance notice!
  - When is the deadline for your graduate school application? Visiting the program admissions webpage. Must do not accept late applications!

#### Second Year
- **Milestones**
  - Complete major foundation classes, such as MATH 2314 Calculus II and MANE 2332 Engineering Statistics.
  - Complete 30 credit hours.
  - Visit the Career Center site to find a job fair to attend. At the event, approach a recruiter and discuss internships.
  - Apply for internship and/or job shadowing opportunities. Discuss this with your advisor, faculty mentor, or Career Center.
  - Engage in an independent study project or an academic internship to complement your major, by taking MANE3101.
  - Complete 30 credit hours.
  - Have you landed an internship or acquired research experience? This is the year to make it happen.
  - Complete 30 credit hours.
  - Seek out research opportunities while your major!
  - Come ready with course suggestions and questions when you visit your academic advisor.
  - Visit the Communication Hauser Lab for help with your speeches.
  - Trouble making your tuition payment? The Financial Aid Office can help. Payment plans and emergency loans are also available.
  - Go show off your research, service-learning or creative works at the Engaged Scholar Symposium!
  - Sharpen your writing skills!
  - Become the secretary for your organization.
  - Consider serving on a campus life/community committee or become a student leader and make a difference. Visit VLink or speak with your Student Government Association for more information!
  - Travel the world! Look into study abroad opportunities! Consider joining a student organization.
  - Set up an informational interview with an individual (especially an alumnus) currently in the field you aspire to work in.
  - Visit the Handshake icon: My.UTRGV.edu.
  - Complete at least 30 credit hours to graduate.
  - Submit your application(s) for graduate school, an apprenticeship, or for fulltime employment.
  - Shoot for a GPA of > 3.0.

#### Third Year
- **Milestones**
  - Complete 30 credit hours.
  - Have you landed an internship or acquired research experience? This is the year to make it happen.
  - Complete 30 credit hours.
  - Seek out research opportunities after your major!
  - Come ready with course suggestions and questions when you visit your academic advisor.
  - Visit the Communication Hauser Lab for help with your speeches.
  - Trouble making your tuition payment? The Financial Aid Office can help. Payment plans and emergency loans are also available.
  - Go show off your research, service-learning or creative works at the Engaged Scholar Symposium!
  - Sharpen your writing skills!
  - Become the secretary for your organization.
  - Consider serving on a campus life/community committee or become a student leader and make a difference. Visit VLink or speak with your Student Government Association for more information!
  - Travel the world! Look into study abroad opportunities! Consider joining a student organization.
  - Set up an informational interview with an individual (especially an alumnus) currently in the field you aspire to work in.
  - Visit the Handshake icon: My.UTRGV.edu.
  - Complete at least 30 credit hours to graduate.
  - Submit your application(s) for graduate school, an apprenticeship, or for fulltime employment.
  - Shoot for a GPA of > 3.0.

#### Fourth Year
- **Milestones**
  - Shoot for a GPA of > 3.0.
  - Complete 30 credit hours.
  - Have you landed an internship or acquired research experience? This is the year to make it happen.
  - Complete 30 credit hours.
  - Seek out research opportunities after your major!
  - Come ready with course suggestions and questions when you visit your academic advisor.
  - Visit the Communication Hauser Lab for help with your speeches.
  - Trouble making your tuition payment? The Financial Aid Office can help. Payment plans and emergency loans are also available.
  - Go show off your research, service-learning or creative works at the Engaged Scholar Symposium!
  - Sharpen your writing skills!
  - Become the secretary for your organization.
  - Consider serving on a campus life/community committee or become a student leader and make a difference. Visit VLink or speak with your Student Government Association for more information!
  - Travel the world! Look into study abroad opportunities! Consider joining a student organization.
  - Set up an informational interview with an individual (especially an alumnus) currently in the field you aspire to work in.
  - Visit the Handshake icon: My.UTRGV.edu.

#### Advice & Support
- **Apply What You Learn**
  - Join a student organization! Consider looking into Society (e.g. MLK Day of Service).
  - Attend a diversity based campus or community event.
  - Look at study abroad opportunities! Consider joining a student organization.
  - Ask a student in class to study with you.
  - Set up your profile on the Engagement Zone through My.UTRGV.edu.
  - Attend a diversity based campus or community event.
  - Look for a service-learning course for guidance, visit Engaged Scholarship & Learning Office.
  - Participate in a campus-sponsored community service project.
  - Ask a student in class to study with you.

#### Global, Campus & Community Engagement
- **Life After Graduation**
  - Create a résumé and set your profile on the Handshake icon: My.UTRGV.edu.
  - Got summer plans? Visit Career Center and ask about places to do some job shadowing.
  - Research shows that students who work on campus perform better than those who work off campus. Look for a job on Handshake!
  - Check your UTRGV email for the daily Messenger-locate and attend one student workshop.
  - Choose a major with confidence. Visit My.UTRGV.edu and check out MyMajors.
  - Find a job shadowing project.
  - Got summer plans? Visit Career Center and ask about places to do some job shadowing.
  - Research shows that students who work on campus perform better than those who work off campus. Look for a job on Handshake!

#### CAREERS
- Project, program, or operations management
- Manufacturing systems
- Supply chain management and logistics
- Productivity, methods and process engineering
- Quality measurement and improvement
- Human factors
- Strategic planning
- Management of change
- Financial engineering
- Engineering management
- Six sigma
- Lean